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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,446

12/13/2005

Ralf Muehlhausen

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06/30/2008

COHEN, PONTANI, LIEBERMAN & PAVANE LLP  
551 FIFTH AVENUE  
SUITE 1210  
NEW YORK, NY 10176

EXAMINER

KRAMER, DEVON C

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

06/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,446	<b>Applicant(s)</b> MUEHLHAUSEN ET AL.	
	<b>Examiner</b> DEVON C. KRAMER	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 6-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 9-12 and 15-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (6402460) in view of Tuckey (5122039).

Regarding claims 1, 4 and 11, Fischer teaches in figure 1 a positive displacement fuel pump (12) for a motor vehicle, comprising an impeller (28) arranged between a bottom (36) and a cover (34) and with a spacer (48) arranged between the bottom and the cover, wherein the bottom and the cover is manufactured from plastic (col. 3 lines 24-27). In addition, the pump comprises an electric motor (30) having a shaft (29), wherein the shaft is attached to the impeller. Fischer lacks the specific teaching of a G-rotor.

Tuckey teaches a similar pump to that of Anderson, but utilizes a g-rotor (46, 48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have replaced the impeller of Fischer with a g-rotor as taught by Tuckey merely to reduce pressure pulsations (col 1 lines 60-65).

In re claims 2, 6 and 9, Fischer teaches lapped surfaces on the cover and bottom. (Col. 5 lines 10-15).

In re claims 3 and 10, Fischer teaches a separate spacer (48). Fischer lacks the teaching of a spacer that is integral with the cover.

Tuckey teaches a spacer (on the side near element 44 in figure 1) integral with a cover (42).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have made the spacer of Fischer integral with the cover as taught by Tuckey to reduce the amount of parts and since it has been held that making a part in one piece which has formerly been made by multiple pieces involves only routine skill in the art. In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349.

In re claim 12, the bottom of Fischer has a planar configuration.

In re claim 15, the cover and bottom of Fischer as modified by Tuckey as recited in the rejection of claims 3 and 10 above would result in a certain amount of prestressing.

IN re claim 16, it is inherent that a certain amount of prestress is present between the housing (14) of Fischer and the cover and bottom.

Claims 7-8, 13-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (6402460) in view of Tuckey (5122039) and further in view of Schelhas et al.

IN re claims 7-8, Fischer in view Tuckey lacks the teaching of a coating.

Schelhas teaches a coating on cover and bottom. (Col. 3 lines 20-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided either the cover or bottom of Fischer with a coating as taught by Schelhas merely to increase the wear resistance of the parts.

In re claim 13, Fischer in view of Tuckey lacks the teaching of a flattening on the shaft.

Schelhas teaches a flattening on the shaft.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have provided the shaft of Fischer with a flattening to attach to the g-rotor of Tuckey as taught by Schelhas merely to provide a anti-rotation feature between the shaft and the pumping element.

In re claim 14, it is not clear if the cover of Fischer has an inlet, the bottom has an outlet 45.

Schelhas teaches an inlet 26 in a cover and an outlet 28 in a bottom.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the pump of Fischer with an inlet port in the cover as taught by Schelhas merely to provide a suction port at the lowest point in the pump to utilize all the gas which may be in the tank in which the pump is placed.

Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (6402460) in view of Tuckey (5122039) and further in view of Harris et al (20030039539)

Fischer in view of Tuckey lacks the teaching of a pumping member made of ceramic, though it is well known in the art to make pumping members from ceramic material.

Harris et al teach an impeller made of ceramic material. (paragraph 9)

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have made the pumping member of Fischer as modified by Tuckey from ceramic as taught by Harris et al to provide a durable corrosion resistant material for the pumping member.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-4 and 6-18 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to DEVON C. KRAMER at telephone number (571)272-7118.

Devon C Kramer  
SPE  
Art Unit 3746

/Devon C Kramer/

Supervisory Patent Examiner, Art Unit 3746